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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

SHANG, ANNAN Q

ART UNIT	PAPER NUMBER
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2614

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DATE MAILED: 09/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/593,573

Applicant(s)

CASILE ET AL

Examiner

Annan Q Shang

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 December 2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>4/12-28-00</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claim 1-8, 13-20 and 22-30, are rejected under 35 U.S.C. 102(e) as being anticipated by **Mao et al (6,459,427)**.

As to claim 1, note the **Mao et al** reference figure 1, disclose a one-way broadcasting system comprising a headend system architecture adapted to receive data from the Internet and transmit the data through a digital TV network to receivers and mapping, combining, broadcasting, linking, etc., the Internet data to MPEG streams and further discloses a method for providing secondary content related to primary content in a broadcast stream comprising the steps of:

the claimed "obtaining secondary content which relates to the main primary content" is met by Dial-Up Access Server (DUA-Server) 100 (fig. 1 and col. 4, lines 18-20 and lines 33-50), which retrieves Web pages, advertisement related the program being watch, etc., "secondary content" (col. 4, lines 47-50) where Broadcast Server (BC-Server) 80 (col. 4, lines 20-23) transports the composite digital television, received via Analog/Digital Receivers 30/40, and Internet signals to Modulator 120;

the claimed "scheduling delivery of said secondary data content..." is met by BC-Server 80 (col. 6, lines 13-30), which includes MORECAST application module 180 that controls when "scheduling delivery" the Web data "secondary content" will be broadcast in relation to non-cyclic broadcasting of MPEG-2 program transport stream "the primary content;"

and transporting the Web data in a data carousel "cyclically delivering said secondary content..." (col. 4, lines 33-50), based on the scheduling, note that Web data is broadcast on a data carousel for all the 6 MHZ channels so that the customer can always have access to the pages and watch television at the same time.

As to claim 2, Mao further discloses where the scheduling comprises creating a schedule for first delivery of the Web data prior to delivery of the MPEG TV program and at least one successive delivery of the Web data after commencement of delivery of the MPEG TV program (col. 4, lines 38-58 and col. 5, lines 32-45), note that the Web data or Internet signals are broadcast in a data carousel "successive delivery" and available all the time from the carousel upon each consumer's demand and customized based on consumer's individual profile and viewing time and broadcast on all the channels so that the consumer can always have access and watch television at the same time.

As to claims 3 and 4, Mao further dynamically modifies and adjusts the schedule based on the viewer interaction with the Web content (col. 4, lines 46-58 and col. 6, lines 13-29).

As to claims 5-8, Mao further discloses receiving at least one viewer request for retransmission and rebroadcasting of the Web content and responds to the at least one viewer request (col. 5, lines 32-64 and col. 6, lines 13-29), note that the D-STB 150 includes a software program to integrate the Internet and digital television signals (col. 4, lines 28-32) and MOREGATE server 80 and MOREMANAGE R MANAGER 155, collects and maintain client profile and usage (col. 5, lines 46-64) and remultiplexes or webcasts customized Web content based on each individual profile and viewing time and transmits the Web content in a data carousel, which enables the consumer to access at anytime or demand based on the consumer's interaction and profile (col. 4, lines 38-58), and since the viewer can access Web content at anytime for real time information on demand and further "go back to the start of the stream..." (col. 7, lines 57-60) it meets the claimed "retransmission" and "rebroadcasting" of the Web content upon request.

As to claim 13, Mao further discloses where the transport mechanism for the MPEG TV content is a digital television broadcast stream, and the transport mechanism for the Web content is additional data stream within the digital television broadcast stream (col. 4, line 59-col. 5, line 8).

As to claim 14, Mao further discloses where the Web content comprises content for use by an interactive television application (col. 4, lines 28-32 and col. 5, lines 40-45).

As to claim 15, Mao further discloses where the Web content comprises an interactive television application (col. 4, lines 28-32 and col. 5, lines 40-45).

As to claim 16, Mao further discloses additional providing control information with the Web content (col. 6, lines 30-61).

As to claim 17, Mao further discloses where providing control information comprises including at least one unique identifier for the Web content, an identification of the MPEG TV content to which the Web content pertains, scheduling information for future broadcasting of the Web content (col. 6, lines 13-29), timing information regarding relating the Web content to the MPEG TV content (col. 4, lines 38-58 and col. 6, lines 30-51).

As to claim 18, Mao further selectively transmits at least one viewer request (col. 4, lines 38-58 and col. 6, lines 21-42).

As to claim 19, note the **Mao et al** reference figure 1, disclose a one-way broadcasting system comprising a headend system architecture adapted to receive data from the Internet and transmit the data through a digital TV network to receivers and mapping, combining, broadcasting, linking, etc., the Internet data to MPEG streams and further discloses a system for providing secondary content related to primary content in a broadcast stream, comprising:

The claimed "an authoring station for scheduling delivery of said secondary data content..." is met by Broadcast Server (BC-Server) 80 (col. 6, lines 13-30), which includes MORECAST application module 180 that controls when "scheduling delivery" Web data "secondary content" will be broadcast in relation to non-cyclic broadcasting of MPEG-2 program transport stream "the primary content,"

and transporting the Web data in a data carousel "cyclically delivering said secondary content..." (col. 4, lines 33-50), based on the scheduling, note that Web data is broadcast on a data carousel for all the 6 MHz channels so that the customer can always have access to the pages and watch television at the same time, note also that the data carousel is synchronous with the digital broadcast program content.

Claim 20 is met as previously discussed with respect to claim 6.

As to claims 22 and 23, Mao further discloses transmitting the Web content on HFC cable system, standard coax or wireless (col. 4, lines 2-7).

As to claim 24, note the **Mao et al** reference figure 1, disclose a one-way broadcasting system comprising a headend system architecture adapted to receive data from the Internet and transmit the data through a digital TV network to receivers and mapping, combining, broadcasting, linking, etc., the Internet data to MPEG streams and further discloses an apparatus at a viewer location for providing display of primary content and second content related to the primary content which is broadcast from a broadcast location, comprising:

the claimed "receiving component for receiving an input stream from said broadcast location" is met by MPEG-2 Transport Decoder 290 and MPEG-2 Driver 280 of Digital Set Top Box (D-STB) 150 (figs 1, 2 and col. 4, lines 23-32 and col. 6, lines 10-12), which receives the MPEG-2 transport streams and Internet signals "input stream" via Broadcast Server (BC-Server) 80;

the claimed "processing component for identifying said secondary content in said input stream..." is met by MORECAST Engine 230 (col. col. 6, lines 7-10 and lines

30-42), which includes a protocol for extracting the Web data “secondary content” in the MPEG-2 transport streams and Internet signals;

the claimed “at least one buffer location for receiving said secondary content of said input stream” is inherent to Digital Set Top Box (D-STB) 150 (col. 6, lines 43-61), which inherently includes a buffer location for receiving the Web data from MORECAST Engine 230 and buffering the Web data; and where a Television Screen “a display component” enables Browser 300 and a main menu to show broadcast 320, Web 330, Video 340 and Mail 350, etc. (col. 6, line 62-col. 7, line 4 and line 5+).

As to claim 25, Mao further discloses where the MORECAST Engine 230 comprises means for extracting control information from the MPEG-2 transport stream and Internet signals and handling the Web data content based on the control information (col. 6, lines 30-42).

As to claim 26, Mao further discloses generating a request for retransmission of the Web data from the broadcast location (col. 6, lines 13-29 and col. 7, lines 48-60), note the user can access the Web data at anytime and dynamically adjust the Web data based on the user requests (col. 4, lines 38-58).

As to claim 27, note the **Mao et al** reference figure 1, disclose a one-way broadcasting system comprising a headend system architecture adapted to receive data from the Internet and transmit the data through a digital TV network to receivers and mapping, combining, broadcasting, linking, etc., the Internet data to MPEG streams and further discloses a broadcast stream, comprising:

the claimed "first ephemeral primary content" is met by MPEG-2 program transport stream (col. 4, lines 33-50 and col. 6, lines 13-30);

the claimed "at least two iterations of cyclic secondary content which relates to a primary content..." is met by Data Carousels (col. 4, lines 41-58) which carries Web data or Internet signals, example Web pages, advertisement and news related to programs being watched, etc., from different types of services, and is interspersed with the first ephemeral MPEG-2 program transport stream to form MPEG-2 and Internet signals (col. 5, line 65-col. 6, line 6).

As to claim 28, Mao further discloses where the first of the Web content precedes the first of the MPEG TV content and where successive ones of the at least two Web content accompany portions of the first MPEG TV content (col. 4, lines 33-58), note the different Web content are broadcast in a data carousel in all the channels carrying the MPEG TV content to enable the consumer to access at anytime on demand.

Claim 29 is met as previously discussed with respect to claim 16.

Claim 30 is met as previously discussed with respect to claim 17.

3. Claims 9, 10 and 21, rejected under 35 U.S.C. 103(a) as being unpatentable over **Mao et al (6,459,427)** as applied to claims 8, 6 and 20 above, and further in view of **Dureau et al (6,288,738)**.

As to claim 9, Mao fails to explicitly teach counting the number of viewer requests for retransmission of the Web content and rebroadcasting the Web content upon receipt of a threshold number of viewer requests for retransmission.

However, note **Dureau** reference discloses method and apparatus for seamless connectivity of wide-band networks and narrow-band networks where a Headend 110 determines routing of Internet data via wide-band networks and narrow-band networks based on a criteria (fig. 3 and col. 5, lines 36-59), such as cost, bandwidth, size of data, number of requests, etc., and rebroadcasts the Internet requested data via wide-band network or the narrow band network (fig. 5 and col. 6, line 50-col. 7, line 14).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of Dureau into the system of Mao to provide a Headend which responds to viewer requests for Web content, and based on a threshold rebroadcast the Web content via the wide-band network for faster responses to consumer requests.

As to claim 10, Mao fails to explicitly teach narrowcasting the Web content.

However, Dureau further discloses narrowcasting Internet data via narrow-band network, based on the type of data requested by the viewer.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to narrowcast Internet data via the narrow-band network to provide interactive service for clients based on the type of data.

Claim 21 is met as previously discussed with respect to claim 10.

4. Claim 11, is rejected under 35 U.S.C. 103(a) as being unpatentable over **Mao et al (6,459,427)** as applied to claim 1 above, and further in view of **Mankovitz (WO 98/48566)**.

As to claim 11, Mao fails to explicitly teach displaying notification data for notifying the viewer of the delivery of Web content.

However, **Mankovitz** teaches a method and apparatus for time-shifting video and text in a text-enhanced television program, where an "icon" notification data for notifying the viewer of the delivery of local content is displayed on a television to enable the viewer to be aware of secondary content (page 5, line 15-page 6, line 17).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of Mankovitz into the system of Mao to display an icon to notify the viewer of the presence of secondary data to enable the viewer to interactive and retrieve the secondary data as desired.

5. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Mao et al (6,459,427)** as applied to claim 1 above, and in view of **Zigmond et al (6,571,392)**.

As to claim 12, Mao fails to explicitly teach where the MPEG TV content is an analog television broadcast stream, and the transport mechanism for Web content comprises a vertical blanking interval within the analog television broadcast stream.

However, **Zigmond** further discloses and analog television broadcast where the primary content is an analog television broadcast and the secondary content or information resource is transmitted in the VBI (col. 7, lines 18-35 and col. 8, lines 40-47).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of Zigmond into the system of Mao to

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provide service to analog television broadcast system to transmit the primary content to maintain downward compatibility with existing system and the transmit secondary content using the VBI in order not to interfere with the video or frames of the primary content.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Mao et al (6,459,427) disclose apparatus and method for web-casting over digital broadcast TV network.

Burns et al (6,298,373) disclose local service provider for pull based intelligent caching system.

Srinivasan et al (6,357,042) disclose method and apparatus for multiplexing separately-authored metadata for insertion into a video data stream.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Annan Q Shang** whose telephone number is **703-305-2156**. The examiner can normally be reached on **700am-500pm**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **John W Miller** can be reached on **703-305-4795**. The fax phone number for the organization where this application or proceeding is assigned is **703-872-9306**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the **Electronic Business Center (EBC)** at 866-217-9197 (toll-free).



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